

WHAT IS CLAIMED IS:

1. A method for expressing a soluble heterologous protein in bacteria comprising:

transforming a bacterium with a vector wherein the vector contains a nucleic acid sequence capable of expressing thioredoxin and a nucleic acid sequence capable of expressing a heterologous protein; and

culturing the bacterium under conditions wherein the thioredoxin and the heterologous protein are expressed as separate non-fused proteins and the heterologous protein is expressed in a soluble, biologically active form.

2. The method of claim 1 wherein the vector is a plasmid.

3. The method of claim 1 wherein the nucleic acid sequence which expresses thioredoxin and the nucleic acid sequence which expresses the heterologous protein are operationally linked to a common promoter.

4. The method of claim 3 wherein the promoter is a *lac* promoter.

5. A vector which contains a nucleic acid sequence which encodes a thioredoxin protein and a nucleic acid sequence which encodes a heterologous protein wherein the vector is capable of expressing the thioredoxin protein and the heterologous protein as separate, non-fused proteins, and wherein the heterologous protein is expressed in a soluble, biologically active form.

6. The vector of claim 5 wherein the vector is a plasmid.

7. The vector of claim 5 wherein the nucleic acid sequence which encodes the thioredoxin protein and the nucleic acid sequence which encodes the heterologous protein are operationally linked to a common promoter.

8. The vector of claim 7 wherein the promoter is a *lac* promoter.

9. A bacterium transformed with an expression vector containing a nucleic acid encoding a thioredoxin protein and a nucleic acid encoding a heterologous protein wherein the thioredoxin protein and the heterologous protein are expressed as separate proteins and wherein the heterologous protein is expressed in a soluble, biologically active form.
 10. The bacterium of claim 9 wherein the bacterium is *Escherichia coli*.
 11. The bacterium of claim 9 wherein the vector is a plasmid.
 12. The bacterium of claim 9 wherein the nucleic acid which encodes the thioredoxin and the nucleic acid which encodes the heterologous protein are operationally linked to a common promoter.
 13. The bacterium of claim 12 wherein the promoter is a *lac* promoter.